北海道大学大学院環境科学院 環境起学専攻 実践環境科学コース

2025年度4月入学大学院修士課程入学試験問題(秋季入試)

専門科目

【開始の指示があるまで、この問題冊子を裏返したり、開いたりしてはいけません】

- この冊子は4頁ある。
- 1問につき1枚の答案用紙を使用すること。
- 答案用紙の表に書ききれない場合は裏を使用すること。
- 答案用紙には科目名と問題番号を記入すること。

2024年8月20日

小論文

小論文は2問ある。問1および問2に解答せよ。

問 1

あなたが行ってみたい「提案型インターンシップ」の具体的な案を一つ考え、a)、b)、c)で指示された事項を中心に論理的に記述せよ。

- a) 提案型インターンシップの内容と目的
- b) 環境科学もしくは持続可能性としての意義
- c) 配慮すべきことや、予想される問題点および対処方法

なお、提案型インターンシップとは、あなたが数ヶ月~半年間程度かけて「持続可能な社会づくりにかかわる企画を現場に提案し、議論を重ね、現場の人とともに実施する」ものである。この提案を入学してから必ずしも行う必要はない。また、修士論文研究のテーマに沿ったものでなくてもよい。

<u>間 2</u> 国連の報告書"The Sustainable Development Goals Report 2024"(United Nations, 2024)には、各設問で示されている文章と図がある。下記の(2A)、(2B)のうち、1つを選択し、解答せよ。

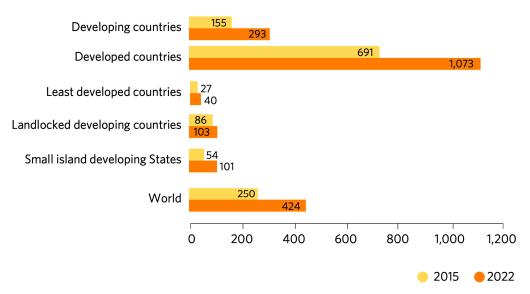
(2A) (i)、(ii)、(iii)に答えよ。なお、(i)、(ii)、(iii)を合わせて 16-32 行程度で答えること。

- (i) この文章と図から読み取った内容を説明せよ。
- (ii) この文章と図に関するあなたの解釈や考えについて論ぜよ。
- (iii) この文章と図が報告書に掲載されている意図について論ぜよ。

Impressive overall average gains in electricity generated with renewables obscure slow progress in some places

Globally, per capita installed capacity for generating electricity with renewable energy nearly doubled from 250 watts in 2015 to 424 watts in 2022. The past five years saw an all-time high compound annual growth rate of 8.1 percent. Developing countries witnessed substantial expansion from 155 to 293 renewable watts per capita. Developed countries saw a milder rise from 691 to 1,073 watts per capita, even as they have 3.7 times more installed capacity than developing nations. Disparities are more evident for the LDCs, LLDCs and small island developing States, which in 2022 achieved 40, 103 and 101 watts per capita, respectively. At current rates of expansion, LDCs would require nearly 41 years, LLDCs 38 years and small island developing States 11 years to match the 2022 levels in developing countries. This wide divide indicates an urgent need to bridge gaps in achieving equitable access to sustainable energy.

Installed capacity for renewable electricity generation, 2015 and 2022 (watts per capita)



参考: LDCs 後発開発途上国, LLDCs 内陸開発途上国

"The Sustainable Development Goals Report 2024" (United Nations, 2024)より

(2B) (i)、(ii)、(iii)に答えよ。なお、(i)、(ii)、(iii)を合わせて 16-32 行程度で答えること。

- (i) この文章と図から読み取った内容を説明せよ。
- (ii) この文章と図に関するあなたの解釈や考えについて論ぜよ。
- (iii) この文章と図が報告書に掲載されている意図について論ぜよ。

Reducing deforestation depends on improving food security, income and land rights

Between 2000 and 2020, the proportion of forest cover decreased from 31.9 to 31.2 percent of total land area, resulting in net forest area losses of nearly 100 million hectares. Agricultural expansion drove almost 90 percent of global deforestation; cropland accounted for 49.6 percent and livestock grazing for 38.5 percent. Globally, small-scale farming caused 68 percent of agriculture-driven deforestation, while large-scale farming contributed to 32 percent. In Africa, small-scale farming was responsible for 97 percent of agriculture-driven deforestation. Forest losses due to large-scale farming were highest in South America at 48 percent (mainly linked to livestock grazing), followed by Asia at 38 percent (primarily due to large-scale crop production, particularly for oil palm plantations).

These findings suggest that efforts to reduce deforestation must tackle production system weaknesses while addressing critical needs such as food security, income and land tenure rights for local communities. Stemming deforestation also demands a comprehensive approach blending regulatory measures, market incentives and stakeholder collaboration to promote sustainable land management and preserve forest ecosystems.

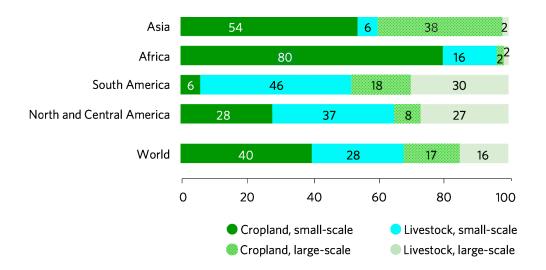
Cropland expansion, 49.6 Livestock grazing, 38.5 Agriculture, 88.1 Dam construction and change in water courses, 1.8 Urban and infra-Other structure developdrivers, 4.0 ment, 6.2 Cropland expansion Livestock grazing Urban and infrastructure development Other drivers Dam construction and change in water courses

Main drivers of global deforestation, 2000-2018 (percentage)

Note: "Other drivers" refers to severe degradation affecting natural regeneration whereby forests are transformed into bare soil or other wooded land. Due to rounding, percentages may not add up to 100 percent.

【次頁に続く】

Share of regional agriculture-driven deforestation associated with large-scale and small-scale livestock and cropland, 2000–2018 (percentage)



Note: Due to rounding, percentages may not add up to 100 percent.

参考: livestock 家畜, tenure rights (土地)所有権, stem 食い止める

"The Sustainable Development Goals Report 2024" (United Nations, 2024) 🗦 9

【問題冊子はここまで】